

Primordium: Business DAO Formation and Autonomy

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***Abstract:** In recent years, several decentralized autonomous organizations (DAOs) have started using smart contracts on the Ethereum blockchain to implement secure voting systems. These on-chain voting protocols ensure that proposed DAO actions cannot be executed without consensus from the DAO's members. We will create a new open-source smart contract framework that builds on popular voting protocols with a self-funded formation process and added business contract capabilities. This new framework will enable DAOs to form and operate as fully independent business entities. Primordium will be deployed using this new framework and will operate as a decentralized for-profit business.*

1. Introduction to Modern DAOs

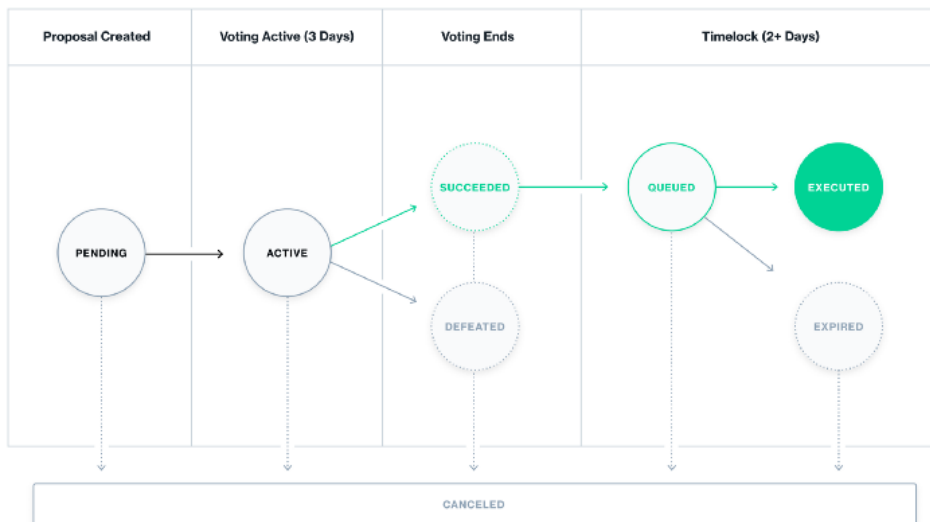
History

Conceptualizations of “decentralized autonomous organizations” (DAOs) [1] have been discussed for many years, and the introduction of Ethereum as a Turing-complete blockchain [2] provided a new and dynamic environment for encoding DAOs into smart contracts. In recent years, Compound (compound.finance) open-sourced a group of governance smart contracts where voting weights are tracked by ownership of an ERC-20 token (COMP) and token holders can vote on administrative protocol updates via an on-chain proposal process [3]. These proposals allow for open-ended transaction execution by the main governance contract. This new system has become a model framework for several interesting DAO governance projects. (Ex: [Nouns DAO](#), [Uni DAO](#), etc.).

Features of COMP Governance

The COMP governance contracts introduced a decentralized voting system with the following main features:

- **Delegation:** A COMP token owner can delegate their token votes to any account address they choose.
- **Liquidity:** COMP tokens are ERC-20 assets (meaning fungible and easily transferrable).
- **Proposals:** Anyone with a minimum percentage of votes delegated to their address can introduce a new proposal (defaulted to 1% at initialization but is updateable by the DAO). Proposals can contain a set of on-chain actions to be executed by the main governance contract if the proposal succeeds in the vote. A proposal follows the below process:
 - Step 1 – After a proposal is created, it must wait 2 days before entering the voting phase to give DAO members a chance to review the proposal.
 - Step 2 – Voting is opened to token holders for 3 days (proposal success requires more “for” than “against” and additionally requires a minimum quorum of “for” votes to succeed).
 - Step 3 – If the vote is successful, the proposal is queued for 2 days in the Timelock.
 - Step 4 – Once the Timelock queue ends, the proposal actions can be executed (but must be executed before the 14-day expiration period).



Flow-chart of COMP governance proposal state. ([source](#))

For more details about COMP governance, please see an introductory article [here](#) written by the founder of Compound, Robert Leshner [3].

Successful Voting Framework

COMP governance succeeded in becoming a secure decentralized voting process that gave the community of Compound users administrative control of on-chain Compound lending apps *without* relying on direct upkeep or maintenance from the Compound team. Thus, checking the boxes of “decentralized” *and* “autonomous.”

2. An Extended Framework for the First Generation of For-Profit Business DAOs

We will extend upon Compound’s governance framework to allow DAOs to form and operate as self-funded and independently functioning business entities. DAO members will autonomously and democratically control the DAO’s mission and operations at every point in the DAO’s existence. This will include any and all fiscal directions, allowing DAOs to operate in a for-profit manner. We will build customizable contract capabilities that enable running all business operations on-chain. This new framework will give DAO projects the opportunity to be community-owned and driven from the beginning.

Concept

Today, many on-chain governance protocols are built post-factum. Meaning, a DAO is formed to manage an on-chain protocol *after* a centralized company has already built the protocol. For example, a common flow of events could look something like:

1. A centralized company forms with the purpose of building a decentralized application (dapp).
2. The company builds and deploys the envisioned dapp.
3. The company designs a DAO and airdrops (allocates) the initial governance token supply to a mixture of the company members, the investors, the dapp users, and often the main governance treasury itself. (*The initial token allocations for the airdrop are distributed at the discretion of the centralized company*).

4. Lastly, the centralized company officially designates administrative control of the dapp to the DAO.

Our extended framework will enable a new model for full and transparent DAO ownership from inception. This would include, but is not limited to, ownership of assets, revenues, and profits. DAOs will have the opportunity to form and fulfill their own self-designated purpose.

As a hypothetical example, a parallel flow of events to the process above could look something like:

1. A DAO forms around a stated mission or purpose (*for example: building a dapp*), with initial capital contributions by founding members.
2. DAO members vote to allocate funds however they see fit to manage developing and deploying the dapp. (*For example: hire contractor(s) to fulfill developmental services*).
3. The DAO maintains administrative control of the deployed dapp, but the DAO also maintains control over the direction of all future endeavors. (*For example: continued dapp development, creating new dapps, taking profit distributions, etc.*).

Complete DAO Autonomy

Business-oriented DAOs will operate independently and autonomously on the Ethereum blockchain via the governance process. DAO members will have complete ownership and control of the DAO and all of its operations without relying on the efforts of others. The DAO will vote on all decisions on-chain, and if a consensus is reached, these decisions will be executed through on-chain protocols. No action can be taken without a vote of approval by the DAO members.

Fair Entry and Fair Exit

Every person will have an equal opportunity to become a founding member of a new DAO. Accordingly, no membership tokens will be airdropped or otherwise distributed by any centralized entities. Instead, membership tokens will only be allocated in direct proportion to each member's individual capital contributions. This keeps the entry conditions equal and transparent for everyone.

Additionally, every member will have equal withdrawal rights, and withdrawal will not negatively or unfairly impact remaining DAO members. To ensure fair exit, a DAO member has the right to dissolve their individual membership in the DAO at any time. If they choose to withdraw, they will be transferred their proportional claim to the DAO's funds. The remaining DAO members' proportional token equities will automatically update in reflection of this change.

Framework

To implement this new business framework, several feature extensions will be applied to the base governance contracts that Compound originally introduced and standardized.

DAO Formation and Protections

Fair Founding Phase

A fair founding phase will be realized through an open public sale of DAO membership tokens. A DAO will initialize with a max supply of tokens and a fixed price per token, with open access for any wallet to purchase tokens at the determined price.

A newly deployed DAO defaults to the “founding” mode. The DAO must vote to enter “governance” mode before the DAO can execute any further actions. The following conditions must be met before a member can submit a proposal to enter “governance” mode:

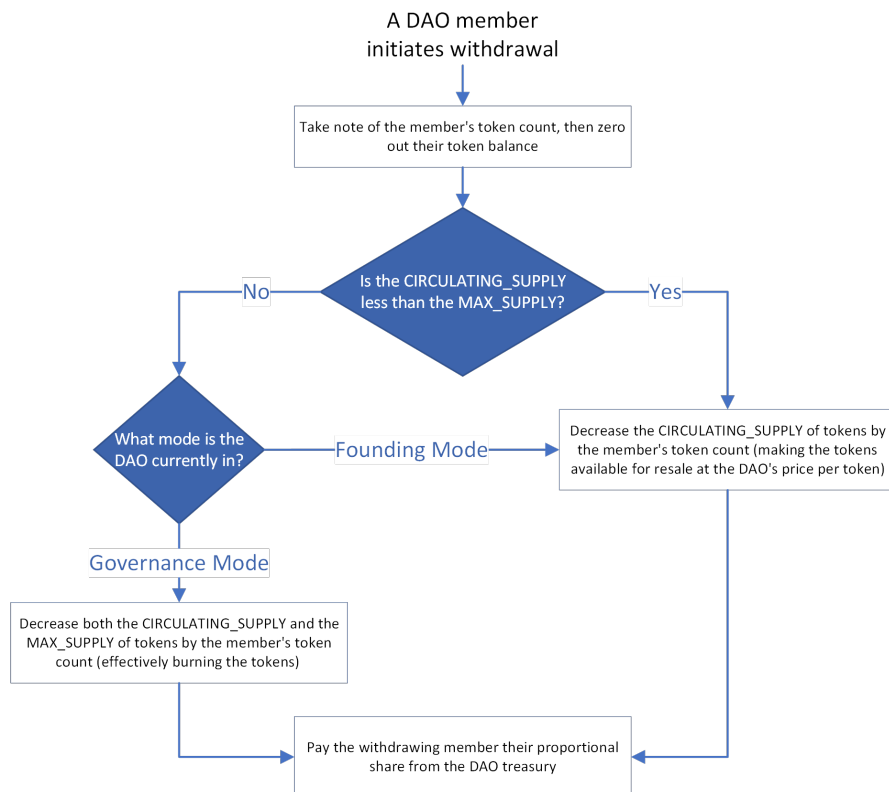
- I. An initial founding window must be allowed to pass before the DAO can enter “governance” mode.
 - o Example: If a DAO’s token sale opens on January 1st with a minimum founding window of 14 days, then members cannot submit a proposal to enter “governance” mode until after January 14th.
- II. Additionally, a minimum threshold of tokens must be sold before a vote can be submitted (or executed) to enter “governance” mode. The minimum threshold is customizable at deployment for each individual DAO.
 - o Example: If a DAO initializes with a max supply of 1,000 tokens and a minimum governance threshold of 20%, then proposals to enter “governance” mode cannot be submitted unless at least 200 tokens are currently held by members.

Once the DAO successfully passes and executes the proposal to enter “governance” mode, then the restrictions are lifted, allowing the DAO to execute any further proposal actions that are successfully voted on by the members.

Member Withdrawal Rights

In addition to equal entry conditions, DAO members should have equal withdrawal rights if they choose to exit the DAO. Members will be allowed to withdraw from the DAO at any time and will exit with a share of the DAO treasury funds that is proportional to their token equity in the DAO.

More specifically, withdrawal conditions will adhere to the following logic:



The smart contract logic that will be followed for a member withdrawing their token membership from a DAO.

Protections

Traditionally, DAO governance models operate with the requirement of a simple majority (>50%) for a vote to succeed. The extended framework will allow DAOs to operate with a majority percentage they choose, ranging from a simple majority (>50%) to a super majority (>66%). A DAO can update this majority percentage at any time.

Additionally, withdrawal rights protect each individual member by empowering them to withdraw their share of capital if they fall out of alignment with the DAO's direction, or if the community suspects bad actors within the DAO. If a member has any concerns, they can withdraw their share of capital *before* a proposal is released from the Timelock and executed.

Lastly, the Timelock period for proposal execution will be extended from 2 days to 4 days by default. This period will be updateable by the DAO, but it initially extends the full proposal timeline from 7 days to 9 days. This gives individual members more time to review any passed proposals before they are executed.

Additional Contract Capabilities

For DAOs to maintain full autonomy, the following customizable business contract features will be implemented in the system of smart contracts:

- **Treasury Management:** The DAO will have a treasury to hold all capital, including founder contributions as well as additional revenue that may result from the DAO's activities. Only the DAO will have administrative access (through the on-chain voting process) to transfer funds from the treasury.
- **Member Distributions:** The DAO can vote to distribute funds from the treasury to the members, proportional to each member's token holdings. This allows DAO members to take profits generated through any business activities.
- **Trusted Contributors:** The DAO can maintain a list of trusted wallet addresses that are allowed to submit proposals at any time, regardless of their token holdings or delegations. This helps the DAO to streamline the process of working with external contractors on projects, granting contractors the ability to submit proposals for milestones in any given project or contract agreement. The DAO can add/remove trusted contractors through the proposal process.
- **Revenue Share Contracts:** The DAO will have the ability to create on-chain revenue share smart contracts with outside parties as part of any potential business contract agreements. Revenue shares can be customized by the DAO with specific percentage shares and expiration periods.
- **Additional Funding:** Through the proposal process, the DAO will be able to increase its own token supply and adjust the price of its tokens, allowing room for new token holders to enter the DAO.

Open-Source Implementation

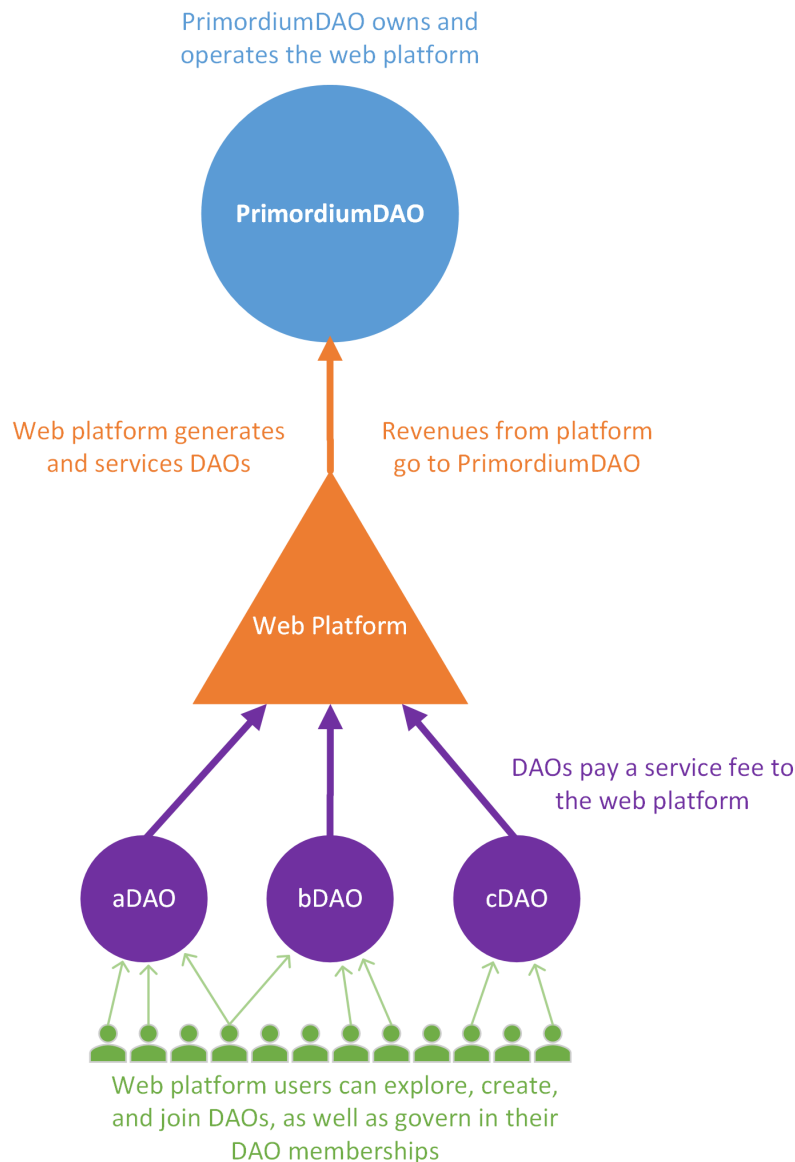
This concept and framework will be actualized in a new open-source system of smart contracts forked from the [Compound governance protocol](#). The smart contracts will enable the features described in the framework above to be fully implementable on-chain.

3. Primordium

The purpose of Primordium is to be the first iteration of DAOs modeled on this business-oriented framework. It will serve as a proof-of-concept for decentralized organizations operating as autonomous for-profit businesses.

Primordium’s mission is to build a no-code web platform where anyone can easily create or join business DAOs. The platform will become a network hub for users to explore and interact with these DAO projects or businesses. For the platform to be in alignment with the ethos of the new DAO concept we are presenting, Primordium will be in full control of the platform and its direction.

To align community incentives, Primordium will initially build and operate the platform on a for-profit basis. DAOs generated through the platform will pay a service fee to Primordium for the DAO creation and management services provided by the platform. The flow-chart below details the relationship between Primordium and the DAOs on the platform:



Initial Direction of the Web Platform

The platform will be a web application created, owned, and operated by Primordium that allows anyone to deploy a new business DAO to the Ethereum network *without* having any prior knowledge or experience with smart contracts. At a minimum, users will be able to:

- Connect their wallet, enter the initial parameters for a brand-new DAO, and then deploy the DAO to the blockchain, all within an intuitive user interface on the web app.
- View a list of DAOs deployed through the platform and/or highlighted on the platform.
- View detailed information for each individual DAO (such as the DAO's mission, its creators, etc.).
- Connect a wallet to buy membership tokens from any DAO with tokens available for sale.
- Enter governance interfaces for any of their DAO memberships to vote on proposals or create new ones.
- Access additional learning resources about business DAOs, how they work, and how to participate.

4. Primordium's Initial Business Operations

Contractor Relationship

BCJ Development, LLC (BCJ) will be pre-registered as a trusted contractor when Primordium is first deployed. This will allow BCJ to submit proposals to be voted on by the DAO members, but BCJ will *not* have any ownership or voting power.

Prior to deploying Primordium, BCJ will create a publicly viewable [business plan](#) for building and deploying the web platform described above. The business plan will include the estimated contract funds required to complete each portion of work on the platform. Once Primordium has initialized governance operations, BCJ will begin submitting fund requests for each phase of work.

BCJ is a distinct and separate entity operating as a contractor for Primordium.

Community

To ensure open communication channels within the Primordium community, BCJ will deploy a public Discord server during the initial smart contract development process. Once the DAO is deployed, new gated servers/channels will be added where access will be limited to members and trusted contractors only, allowing internal communications among Primordium members.

Primordium can vote to designate their own community admins and/or create new mediums of communication as Primordium's communication needs evolve over time.

5. Conclusion

We have proposed a new conceptualization for how businesses and entities can form and operate in a decentralized autonomous way. We will enable DAOs to follow this new conceptualization by extending Compound's governance framework with a transparent founding phase and additional business contract capabilities. This new framework will be established as an open-source system of smart contracts.

Primordium will be the first DAO created using this new business framework and will serve as a proof-of-concept for how business can be facilitated using decentralized protocols.

References

- [1] Vitalik Buterin. “Bootstrapping a Decentralized Autonomous Corporation: Part I.” *Bitcoin Magazine*, <https://bitcoinmagazine.com/technical/bootstrapping-a-decentralized-autonomous-corporation-part-i-1379644274>, 2013.
- [2] Vitalik Buterin et al. *Ethereum: A Next-Generation Smart Contract and Decentralized Application Platform*. 2014.
- [3] Robert Leshner. “Compound Governance.” <https://medium.com/compound-finance/compound-governance-5531f524cf68>, 2020.